

We claim:

1. A communication device, comprising:

- a multifunctional keyboard having a plurality of letter keys, wherein each letter key is configured to generate a keyboard output signal;

- a processor coupled to the multifunctional keyboard that is configured to convert each keyboard output signal generated by the letter keys into a character code;

- means for converting each keyboard output signal generated by the letter keys into a telephony tone signal; and

- a keyboard mode control software module operating on the processor that controls whether the keyboard output signals from the letter keys are converted into character codes or telephony tone signals.

2. The communication device of claim 1, wherein the multifunctional keyboard is a QWERTY style keyboard.

3. The communication device of claim 1, wherein the converting means is the processor.

4. The communication device of claim 1, wherein the converting means is a tone signal generator.

5. The communication device of claim 4, wherein the tone signal generator also generates an audible tone when one of the letter keys is pressed.

6. The communication device of claim 1, wherein the keyboard mode control software module also controls whether the keyboard output signals from the letter keys are converted into both character codes and telephony tone signals.

7. The communication device of claim 1, wherein the telephony tone signal generated for each letter key corresponds to an integer ranging from two (2) to nine (9).

8. The communication device of claim 1, wherein the telephony tone signals are Dual Tone Multi Frequency (DTMF) signals.

9. The communication device of claim 1, wherein the character codes are American Standard Code for Information Interchange (ASCII) character codes.

10. The communication device of claim 1, wherein:

the plurality of keys on the multifunctional keyboard also includes a plurality of number keys, each of which is configured to generate a keyboard output signals;

the processor is also configured to convert the keyboard output signals generated by the number keys into character codes;

the converting means also converts the keyboard output signals generated by the number keys into telephony tone signals; and

the keyboard mode control software also controls whether the keyboard output signals from the number keys are converted into character codes or telephony tone signals.

10004001-10101

11. The communication device of claim 1, further comprising:

a plurality of software applications stored in a memory of the communication device and executed by the processor, wherein the keyboard mode control software module detects which of the software applications is active in order to determine whether the keyboard output signals from the letter keys are converted into character codes of telephony tone signals.

12. The communication device of claim 1, further comprising:

a plurality of software applications stored in a memory of the communication device and executed by the processor;

wherein the memory is coupled to the processor and includes a service store memory location that associates each software application with a keyboard mode, and wherein the keyboard mode is detected by the keyboard mode control software module to determine whether the keyboard output signals from the letter keys are converted into character codes or telephony tone signals.

13. The communication device of claim 1, further comprising:

a software application stored in a memory of the communication device and executed by the processor;

wherein the memory is coupled to the processor and includes a configuration store memory location that identifies a preferred keyboard mode for the software application, and wherein the preferred keyboard mode is detected by the keyboard mode control software module to determine whether the keyboard output signals from the letter keys are converted into character codes or telephony tone signals.

14. The communication device of claim 1, wherein the multifunctional keyboard is uniformly distributed across a housing of the communication device such that one half of the letter keys are located on a left-hand side of the housing and the remaining letter keys are located on a right-hand side of the housing.

15. The communication device of claim 14, wherein the letter keys on the left-hand side of the housing are tilted at a negative angle from vertical and the letter keys on the right-hand side of the housing are tilted at a positive angle from vertical.

16. A method for controlling an operational mode of a multifunctional keyboard for a communication device, comprising the steps of:

providing a telephony mode in which output signals from the multifunctional keyboard generate telephony tone signals;

providing a data mode in which output signals from the multifunctional keyboard generate character codes; and

receiving a mode trigger signal that controls whether the communication device should operate in the telephony mode or the data mode.

17. The method of claim 16, wherein the communication device operates in the data mode by default if the mode trigger signal does not indicate the telephony mode.

18. The method of claim 16, wherein the step of receiving a mode trigger signal that controls whether the communication device should operate in the telephony mode or the data mode is performed by a method comprising the steps of:

providing a service store memory location that includes a log of the operational mode associated with a plurality of applications available on the communication device;

receiving the mode trigger signal, wherein the mode trigger signal indicates that one of the applications has been executed; and

accessing the service store memory location to detect whether the telephony mode or the data mode is associated with the active application.

19. The method of claim 16, wherein the step of receiving a mode trigger signal that controls whether the communication device should operate in the telephony mode or the data mode is performed by a method comprising the steps of:

providing a configuration store memory location that identifies a preferred operational mode for an application available on the communication device;

receiving the mode trigger signal, wherein the mode trigger signal indicates that one of the applications has been executed; and

accessing the configuration store memory location to detect whether the preferred operational mode for the application is the telephony mode or the data mode.

20. The method of claim 16, wherein the mode trigger signal is initiated by pressing a key on the multifunctional keyboard.

21. The method of claim 16, wherein the mode trigger signal is initiated by a switch.
22. The method of claim 16, wherein the mode trigger signal is initiated by activating a software application on the communication device.
23. The method of claim 16, wherein the mode trigger signal is initiated by activating a software application on the communication device.
24. The method of claim 16, wherein the mode trigger signal is initiated when an incoming message is received by the communication device.
25. The method of claim 16, comprising the additional steps of:
- providing a joint mode in which input from the multifunctional keyboard generates both telephony tone signals and character codes;
 - wherein the mode trigger signal also controls whether the communication device should operate in the joint mode.
26. The method of claim 25, wherein the data mode is executed by default if the mode trigger signal does not indicate either the telephony mode or the joint mode.
27. The method of claim 16, comprising the additional step of generating an audible tone when a key on the multifunctional keyboard is pressed.

28. The method of claim 27, wherein the audible tone may be enabled or disabled by a communication device user.

29. The method of claim 27, wherein the audible tone generated while the communication device is executing the telephony mode is different from the audible tone generated while the communication device is executing the data mode.

30. A communication device, comprising:

a multifunctional keyboard, wherein a plurality of keys on the multifunctional keyboard correspond to both a number and a letter, and wherein each of the keys generates a keyboard output signal;

a processor coupled to the multifunctional keyboard that is configured to convert each keyboard output signal generated by the plurality of keys into a character code;

means for converting each keyboard output signal generated by the plurality of keys into a telephony tone signal; and

a keyboard mode control software module operating on the processor that controls whether the keyboard output signal for each of the plurality of keys represents the number or the letter corresponding to the key, and also controls whether the keyboard output signals from the plurality of keys are converted into character codes or telephony tone signals.

31. The communication device of claim 30, wherein the multifunctional keyboard is a QWERTY style keyboard.

TOPT-1000000

32. The communication device of claim 30, wherein the converting means is the processor.

33. The communication device of claim 30, wherein the converting means is a tone signal generator.

34. The communication device of claim 30, wherein the telephony tone signals are Dual Tone Multi Frequency (DTMF) signals.

35. The communication device of claim 30, wherein the character codes are American Standard Code for Information Interchange (ASCII) character codes.

36. The communication device of claim 30, wherein the multifunctional keyboard is symmetrically distributed across a housing of the communication device.

37. The communication device of claim 36, wherein a first portion of the letter keys are tilted at a negative angle from vertical and a second portion of the letter keys are tilted at a positive angle from vertical.

38. A multifunctional keyboard for a communication device, comprising:

a plurality of character entry keys;

means for mapping each of the plurality of character entry keys to one of a number character or a letter character.

39. The multifunctional keyboard of claim 38, wherein the mapping means is a processor.

40. The multifunctional keyboard of claim 38, wherein the mapping means is a keyboard control software module executing on a processor.

41. The multifunctional keyboard of claim 38, further comprising:

means for toggling the multifunctional keyboard between a letter entry mode and a number entry mode, wherein each of the plurality of character entry keys are mapped to an associated number character when the multifunctional keyboard is in the number entry mode and the plurality of character entry keys are mapped to an associated letter character when the multifunctional keyboard is in the letter entry mode.

10004001-110101